

Supersymmetry

(Michelangelo Mangano, CERN TH)

Executive summary:

- Rather quiet edition for SUSY (factor of 3 fewer entries than in the 2000 RPP)
- LEP output is fading away, Tevatron run 2 is ramping up, but 1fb-1 samples not yet available for RPP 06
- DM searches becoming a key player in the neutralino section!

Supersymmetry

Encoders:

Exp: L.Pape (ETH, Zurich),

TH: A. de Gouvea (Northwestern University)

DM/AstroPH/Cosmo: K.Olive (U.Minnesota)

New measurements encoded: 74

(129 in 04; 160 in 02; **204 in 00**; 114 in 98)

- LEP: 32 (81; 120; 174)
- Tevatron: 11 (13; 22; 20)
- Theory: 6 (20; 13; 6)
- DM searches: 20 (9)
- Other exp's: 5 (6; 5; 4)

Minireviews:

- Supersymmetry part I: Theory (H.Haber, UCSC) Update April 06
- Supersymmetry part II: Experiments (M. Schmitt, NWU) **NOT UPDATED !**

Breakdown by sparticle/technique

	χ^0 (stable)	χ^0 (unstable)	$\chi^0_{2,3,4}$	χ^\pm	$\tilde{\nu}$	$\tilde{\ell}$	\tilde{q}	\tilde{g}	\tilde{b}	\tilde{t}	Misc	TOT
LEP	2	7	3	3	5	7			1	2	2	32
TeV		2		3	2					3	1	11
HERA		1					2			1		4
DM/ Astro	20											20
TH	3							1	1	1		6
Other											1	1
	25	10	3	6	7	7	2	1	2	7	4	74

Comments:

- **Reduction in number of entries** continues: LEP wrapping up, still only few Tevatron run II results
- Updated theory minireview, with discussion of recent morels (e.g. split SUSY), and new plots (e.g. mass spectra for SPS1a)
- Urgent need to identify a new author for the experimental minireview, in view of the new (hopefully many!) results expected from the Tevatron

Final remark

- After 11 years, I'm leaving the PDG
- Georg Weiglein (IPPP, Durham, UK) has accepted to take over my PDG responsibilities